



## CASE STUDY: Norfolk County Council, England

### Highlights

#### Challenge

Implement single sign-on for all users.

#### Key Benefits

- Time savings
- Accurate information
- Pluggable infrastructure
- Improved security

#### Overview of the Problem

Norfolk County Council had a constant concern about how the users in their 450 schools would have access to the wealth of online resources available to them when they had so many different logins and different personal information to be maintained. In Norfolk, staff had been managing unique identities for all school children, teaching and support staff for about seven years, with the principal purpose of providing email addresses. Each learning establishment regularly sent basic information taken from their MIS to the Council to aggregate and check for anomalies –the number of inaccurate Unique Pupil Numbers (UPNs) was staggering! Additionally, the Council needed to ensure that each person had one identity regardless of the number of times they exist across Norfolk's learning establishments. This equates to about 130,000 people across 436 establishments. A need existed in order to improve the accuracy and timeliness of this information flow and reduce the burden upon administrators at the same time. Doing so would provide them with an opportunity to implement Shibboleth architecture for single sign-on and register with the UK Access Management Federation (UKAMF).

#### Demographics

Norfolk County is located on the east coast of England. The region encompasses:

- 450 Learning Establishments
  - Primary and secondary schools
  - Special schools
  - Pupil Referral Units
- 130,000 learners, teachers and support staff

#### Technical Solutions and Applications

The Norfolk County Council Proof of Concept (PoC) focused upon the needs of five rural primary schools all using the same MIS and learning platform. The applications they selected – Edustructures SIFWorks ZIS Enterprise Edition, Netmedia Education's Learning Platform, Pearson Phoenix e1 Management Information System and an in-house Identity Management (IdM) system (SQL DB) -- were configured to provide real time data sharing between the systems and resources. As the information was updated in the MIS, the learning platform and IdM were seamlessly updated. This ensured that children and staff were always in the correct groups and with the correct identities. The PoC ran for three months with over fifteen different use cases successfully tested including the end of year rollover.

#### Benefits Achieved and Results

Norfolk has already seen real time savings with their SIF Implementation. Information is entered once and reused many times. SIF is helping to provide an improved customer experience. The IdM is not only up to date, but the accuracy of the information moving around the system is also greatly improved. This means that learners, teachers and support staff all have access to relevant local authority provided services faster.

Unforeseen benefits include the establishment of a "pluggable infrastructure" – changing a service such as the MIS or the learning platform is less costly having removed the need to rewrite integrations with other services. It also turns out to be faster. Additionally, they have experienced improved security. Information sharing is within a common and secure managed environment. Norfolk has eliminated reliance on often insecure and difficult to audit mechanisms such as data keys, email, DVDs, and post.

SIF is considered to be a key standard within our technical strategy to support World Class teaching and learning in Norfolk. SIF is integral to our delivery of flexible and efficient 5th utility ICT solutions.

- Michael Pickett

Manager - Digital Infrastructure, ICT Solutions, Norfolk County Council

## Lessons Learned

Before rolling out to all of the primary schools and next pilots, Norfolk would insist upon using change driven SIF Agents. This will reduce network traffic as the subscribing service will not need to request all data objects each time it is set to update. It will also facilitate timely updates key to managing such things as attendance.

"We need a way to manage staff leavers to ensure that the appropriate levels of access are granted to services in the Shibboleth environment. Presently the SIF Implementation Specification (UK) 1.2 does not include leavers in the Workforce data objects but as a member of the SIF Association UK we can help develop the model to meet this business requirement."

## Next Steps

Now that Norfolk is able to register the Norfolk Shibboleth Identity Provider (IdP) with the UKAMF, the stakeholders are confident that the information supporting it is up to date and accurate. This will enable Norfolk County Council to implement single sign-on with participating services.

In the future, Norfolk wants to better support learners taking part in the 14 to 19 Diploma scheme. They typically have access to services across multiple establishments. Keeping all of these services up to date is time consuming and the learner currently has to remember many different username and password combinations. In addition it is important that learner attendance can be tracked across multiple establishments. The services that Norfolk wants to pilot in their SIF Implementation include a secondary school learning platform and MIS as well as a college Information Management System (IMS) and possibly a college VLE.

## About the SIF Association

The SIF Association is a unique, non-profit collaboration composed of over 2,300 schools, districts, states, U.S. Department of Education, International Ministries of Education, software vendors and consultants who collectively define the rules and regulations for educational software data interoperability. The SIF Implementation Specification enables diverse applications to interact and share data and information efficiently, reliably, and securely regardless of the platform hosting those applications. The SIF Association has united these education technology end users and providers in an unprecedented effort to give teachers more time to do what they do best: teach. For further information, visit <http://www.sifassociation.org>.



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